

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/FR2004/000429</b>	International filing date (day/month/year) <b>26.02.2004</b>	Priority date (day/month/year) <b>28.02.2003</b>	
International Patent Classification (IPC) or national classification and IPC <b>F16H25/20</b>			
Applicant <b>E.C.L. ET AL</b>			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.	
3. This report is also accompanied by ANNEXES, comprising:	
a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:	
<input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).	
<input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.	
b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4. This report contains indications relating to the following items:	
<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-11 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 1-16 \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/4-4/4 \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-16	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-16	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 1-16 does not involve an inventive step (PCT Article 33(3)).</p>			
<p>1.a Document D1 is considered to constitute the prior art closest to the subject matter of claim 1 and discloses (the references in parentheses are to that document):</p> <p>an actuator (figure 1) having a sleeve with an opening, an actuating rod (28) with an axial cavity and a thread (26), the rod being able to move in the opening, a driving screw inserted into the axial cavity and capable of interacting with the thread (26) so as to cause the rod (28) to move inside the sleeve and the opening, a driving toothed wheel coupled to the driving screw, and an endless screw that can be coupled to the shaft (20) of a driving motor (14) and interact with the driving wheel so as to rotate the latter.</p>			

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
1.b	<p>The subject matter of claim 1 differs from the known actuator by the selection of the values of the centre distance E of the axes and speed reduction rate RR.</p>
1.c	<p>The choice of the values of the centre distance of the axes and of the speed reduction rate is only one of several obvious possibilities from which a person skilled in the art would select to solve the stated problem, according to the circumstances, without being inventive, by a trial-and-error method or by applying normal research methods.</p> <p>The claimed range does not appear to result from the expected test results.</p>
1.d	<p>The choice of values proposed in the claim of the present application is not considered inventive (PCT Article 33(3)).</p> <p>A similar objection could be raised with respect to documents D2, D3 or D4, instead of D1.</p>
1.4	<p>The same argument applies, <i>mutatis mutandis</i>, to the subject matter of dependent claims 2, 3, 4, 5, 7, 8, 9, 11 and 12, which also fail to be inventive (PCT Article 33(3)).</p>
2.	<p>Dependent claims 6, 10 and 13 do not contain any features which, in combination with the features of any claim to which they refer, define a subject</p>

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

matter which would meet the PCT novelty or inventive step requirements (PCT Article 33(3)). Document D1 describes these features.

- 3.1 The subject matter of independent claims 14, 15 and 16 does not involve an inventive step (PCT Article 33(3)) for the following reasons:

Claim 14:

It is well known to move the anodic frame of the superstructure of an electrolytic cell by means of an actuator. The use of an actuator as per claim 1 is not considered inventive.

Claim 15:

Superstructures to be mounted in an electrolytic cell for producing aluminium are known to comprise an anodic frame equipped with at least one actuator. The use of an actuator as per claim 1 is not considered inventive.

Claim 16:

It is well known to arrange superstructures in electrolytic cells. For this reason, arranging a superstructure as per claim 15 in an electrolytic cell cannot be considered inventive.

- 3.b A person skilled in the art would obviously use an actuator as described in document D1 to move the anodic frame of the superstructure of an electrolytic cell. Consequently, if the actuator as per claims 1-13 is not considered inventive,

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

this use would also fail to meet the requirements of PCT Article 33(3) for inventive step.

The same argument applies to the superstructure to be mounted in an electrolytic cell having an anodic frame and at least one actuator according to the present application (claim 14), and to the electrolytic cell (claim 16) equipped with a superstructure as per claim 15.